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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/468,639	12/22/1999	TOYOSHI KAWADA	1081.1084/JD	3873

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EXAMINER	
LIANG, REGINA	

ART UNIT	PAPER NUMBER
2629	

DATE MAILED: 10/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/468,639	KAWADA ET AL.	
	Examiner	Art Unit	
	Regina Liang	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 September 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *3-14,16-24,26 and 27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *3-14, 16-24, 26, 27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is response to amendment filed 9/11/06. Claims 3-14, 16-24, 26 and 27 are pending in the application.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 14 is indefinite since it depends on a cancelled claim 1.

Claim Rejections - 35 USC 102

5. Claims 3-14, 16-24, 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Andoh et al (US. PAT. NO. 4,044,349 hereinafter Andoh).

As to claims 3, 5, 7, 9, 22, 24, 26, Figs. 1, 2 of Andoh discloses a plasma display panel device having first and second electrodes (X and Y electrodes) provided apart from one another and a ground power source (0 v in Fig. 3), and performing display by generating a discharge between the first and second electrodes, the plasma display panel device comprising:

a drive circuit (driver 112), when a front edge of a drive voltage pulse (+Vw/2, -Vw/2 are applied to Y electrodes; +Vw/2, -Vw/2 are applied to X electrodes) is applied between the first and second electrodes, changes the first and second electrodes from a first state in which the first and second electrodes are connected to a first power source (see, Figs. 4A, 4B, +Vw/2 is applied to X electrodes; -Vw/2 is applied to Y electrodes), different from the ground power sources, to a second state in which the first or second electrode is connected to a second power source (-Vw/2 is applied to X electrodes; +Vw/2 is applied to Y electrodes), different from the ground power source, so as to apply a drive voltage between the first and second electrodes (see Figs. 4A-4D and col. 5, line 53 to col. 6, line 46). Fig. 4 of Andoh also shows the drive voltage pulse having a front edge and a back edge, therefore, Andoh teaches the limitation as claimed.

As to claims 4, 6, 8, 10, Figs. 4A, 4B of Andoh teaches the drive circuit returns the fist second electrode to the first state, of being connected to the first power source (+Vw/2 is applied to X electrodes; -Vw/2 is applied to Y electrodes).

As to claims 11-13, Figs. 4A, 4B of Andoh teaches reversed-polarity discharge voltage pulses are applied to the first and second electrode (+Vw/2 and –Vw/2 are reversed-polarity pulses).

As to claims 14, 16-19, Fig. 3 of Andoh teaches setting the driving voltages Vw, Vs, etc. above a ground power source, it is inherent that the control portion of the driving circuit is connected to a ground power source and that supplies a control signal to the driving circuit.

As to claims 20, 21, 23, Figs. 4A, 4B of Andoh teaches the potential of the ground power source is between the potential of the first power source and the potential of the second power source.

6. Claims 3-14, 16-24, 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Sakuma (US. PAT. NO. 4,384,287).

As to claims 3, 5, 7, 9, 22, 24, 26, Sakuma discloses a plasma display panel device having first and second electrodes (301, 302) provided apart from one another and a ground power source, and performing display by generating a discharge between the first and second electrodes, the plasma display panel device comprising: a drive circuit (Fig. 6) applying a drive voltage pulse between the first and second electrodes, the drive circuit, when a front edge of a drive voltage pulse is applied between the first and second electrodes, changes the first and second electrodes from a first state in which the first and second electrodes are connected to a first power source (i.e., Fig. 7E, +V0 corresponds to the first state), different from the ground power source, to a second state in which the first or second electrode is connected to a second power source (-V0 corresponds to the second state), different from the ground power source, so as to apply a drive voltage between the first and second electrodes (see Figs. 6-12 and col. 5, lines 14-45, col. 7, line 11 to col. 8, line 20). Figs. 7, 10, 12 of Sakuma show the drive voltage pulse having a front edge and a back edge, therefore, Sakuma teaches the limitation as claimed.

As to claims 4, 6, 8, 10, Fig. 7E of Sakuma teaches the drive circuit returns the first second electrode to the first state (+V0), of being connected to the first power source.

As to claims 11-13, Fig. 7E of Sakuma teaches reversed-polarity discharge voltage pulses are applied to the first and second electrode (+V0 and –V0 are reversed-polarity pulses).

As to claims 14, 16-19, Fig. 6 of Sakuma teaches a control portion of the driving circuit is connected to a ground power source and that supplies a control signal to the driving circuit.

As to claims 20, 21, 23, Fig. 10B of Sakuma teaches the potential of the ground power source is between the potential of the first power source (+Vi) and the potential of the second power source (-V2).

7. Claim 27 is rejected under 35 U.S.C. 102(a) as being anticipated by the admitted prior art (Figs. 24A. 24B, and page 2, line 9 to page 4, line 20 of the specification).

The admitted prior art teaches a plasma display panel device having first (X), second (Y) and third (A) electrodes, comprising a drive circuit that when a drive voltage pulse is to be applied between the first and second electrodes, applies the drive voltage pulse between the first and second electrodes, while maintaining the third electrode at a voltage potential of the ground power source, the voltage potential of the ground power source being between voltage potentials of the first electrode and the second electrode (Figs. 24A, 24B of admitted prior art show the GND potential is between +Vs and -Vs).

Response to Arguments

8. Applicant's arguments filed 9/11/06 have been fully considered but they are not persuasive.

Applicant's remarks regarding claim 27 on page 10 are not persuasive. In Fig. 24B, the admitted prior art shows in the sustaining discharge period (SUS), sustaining discharge pulses SUSP are applied alternately to the x electrode and y electrodes, while maintaining the address electrode A at ground, which reads on "a drive circuit that when a drive voltage pulse is to be applied between the first and second electrode, applies the drive voltage pulse between the first

and second electrodes, while maintaining the third electrode at a voltage potential of the ground power source" as claimed in claim 27.

Applicant's remarks regarding claim 3 on page 9 are not persuasive. Fig. 4A of Andoh shows a first voltage pulse (+Vw/2) is applied to X electrode, after +Vw/2 is completed, a second voltage pulse (-Vw/2) is applied to X electrode, after –Vw/2 is completed and then the first voltage pulse (+Vw/2) is applied to X electrode again. Therefore, Andoh clearly teaches the function of the drive circuit when the drive voltage pulse is completed, the drive circuit returns the first and second electrodes to the first state, upon completion of the application of the drive voltage pulse as claimed.

Applicant argues Andoh (on page 10 of the remarks) in that "when the pulse is completed, both the X and Y electrodes are returned to the ground power source line", are not persuasive. Figs. 4A, 4B of Andoh teaches when the pulse is completed, both the X and Y electrode are returned to Vw, and are **not returned** to the ground power source line. As shown in Fig. 3, Vw is not a ground power source; Vw is a voltage level above the ground power source.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Regina Liang whose telephone number is (571) 272-7693. The examiner can normally be reached on Monday-Friday from 8AM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe, can be reached on (571) 272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Regina Liang
Primary Examiner
Art Unit 2674

10/11/06